

**VI.) WHAT IS CLAIMED OF PROPRIETARY INVENTIVE ORIGIN IS:**

★ **1.)** A pneumatic-snake for clearing a clogged plumbing-line; said apparatus comprising: a length of flexible resilient imperforate tubing having sufficient linear-integrity as to enable longitudinal push-feeding down into an existing drain-pipe, said  
5 tubing including an air-nozzle means at its leading-end for turbulent pneumatic blasting of high-velocity air proximal a plumbing-line obstruction, and including coupling means at trailing-end of said tubing with connection means for adapting to an air-pressure source  
8 means.

**2.)** The pneumatic-snake apparatus according to Claim-1, wherein said coupling means includes a manually actuateable air-valve for selective inducement of said air-pressure means.

**3.)** The pneumatic-snake air-valve according to Claim-2, wherein is employed sequentially intermittent operation in bursts of approximately 2-4 seconds open-valve time duration, followed by a closed-valve pause of another approximately 2-4 seconds duration before resuming open-valve operation; repetitiously until obstruction becomes cleared.

**3.)** The pneumatic-snake air-pressure source according to Claim-1, wherein a pressure range of approximately 80-120/psi is required for optimal performance.

**4.)** The pneumatic-snake apparatus according to Claim-1, wherein said flexible tubing is conventional commercially available resilient type of 1/4-inch to 1/2-inch inside-diameter.

**5.)** The pneumatic-snake apparatus according to Claim-1, wherein said flexible tubing is conventional commercially available air-hose having a cording reinforcement type of construction.

**6.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed with an approximate 3/32-inch exiting-orifice portion which internal-diameter extends aftward about 1/4-inch where the internal-diameter reduces into an approximate 1/8-inch delivery-passageway diameter.

**7.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed with a substantially hemispherical-head shaped forward projection, thereby improving the ability of the leading nozzle to probe around and passed natural declinations, turns, and crags presented within the plumbing-line passageway.

**8.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed with a substantially hemispherical shaped forward projection, and including a longitudinally protruding nozzle-outlet portion configured as to induce an abaxial drawing forward of peripheral water as to thereby enhance said turbulent blasting action.

**9.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed with a primary central longitudinal outlet portion, and including a plurality of obliquely forward arranged cooperative secondary outlets emanating from a common central air-passageway, thereby emitting an enhanced cone of turbulent air.

**10.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed with an aftward coaxial radially barbed male-connector means, for coupling into said tubing.

**11.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed with an aftward coaxial male-connector means, for coupling fast into said tubing.

**12.)** The pneumatic-snake apparatus according to Claim-1, wherein said air-nozzle portion is formed as a primary central longitudinal outlet means, and includes at least one obliquely trailing cooperative secondary inlet converging thereto as a common central air-passageway; thereby serving to suck-in ambient water, the resulting air and water combination thereby enhancing the resulting generation of turbulent clog blasting fluid without problematically introducing additional water into the plumbing-line.

**13.)** The pneumatic-snake apparatus according to Claim-1, wherein is also provided a splash-deflector device comprising a substantially cup shaped annular trough like member having a central stabilizing annular flange portion defining a through-hole which is sized to be a slip-fit around said tubing and thereby acting as a slide-guide; and, including an outermost forward terminating annular flange portion, serving to divert plumbing-line reverse-flowing activated water turbulence substantially away from back-splashing toward immediate presence of the human operator.

**★ 14.)** A pneumatic-snake for clearing a clogged plumbing-line; said apparatus comprising:

a length of flexible resilient imperforate tubing of approximate 1/4-inch to 1/2-inch inside-diameter fitted with a hemispherical-head shaped air-nozzle means at its leading-end enabling easier snag-resistant probing passed internal plumbing-line crags, said air-nozzle having a central longitudinal through-hole means serving to provide turbulent blasting of high-velocity air proximal a plumbing-line obstruction, and including coupling means at trailing-end of said tubing for intermediate connection to a manually operated air-valve means arranged in fluid-communication with an air-pressure source means;

a splash-deflector means arranged as a slip-fit upon said tubing as to reduce reverse-flow splash at the point of said tubing entry into said plumbing-line yet enabling manual feeding-in of said tubing there through said splash-deflector and into the plumbing-line as required to directly access said plumbing obstruction.

**15.)** The pneumatic-snake apparatus according to Claim-14, wherein said air-nozzle portion is formed with an approximate  $3/32$ -inch exiting-orifice portion which internal-diameter extends aftward about  $1/4$ -inch where the internal-diameter transcends into an approximate  $1/8$ -inch internal-diameter passageway; and, including a longitudinally protruding nozzle-outlet portion configured as to induce an abaxial drawing forward of peripheral water as to thereby enhance said turbulent blasting action.

**16.)** The pneumatic-snake apparatus according to Claim-14, wherein said air-nozzle portion is formed with a primary central longitudinal outlet portion, and including a plurality of obliquely forward arranged cooperative secondary outlets emanating from a common central air-passageway, thereby emitting an enhanced cone of turbulent air.

**17.)** The pneumatic-snake apparatus according to Claim-14, wherein said air-nozzle portion is formed as a primary central longitudinal outlet means, and includes at least one obliquely trailing cooperative secondary inlet converging thereto as a common central air-passageway; thereby serving to draw-in ambient water, the resulting air and water combination thereby enhancing the resulting generation of turbulent clog blasting fluid without problematically introducing additional water into the plumbing-line.

**18.)** The pneumatic-snake apparatus according to Claim-14, wherein said air-pressure source means can be a conventional hand-portable pre-pressurized canister, or conventional electric-powered air-pump, or a conventional combination thereof.

**19.)** The pneumatic-snake apparatus according to Claim-14, wherein said splash-deflector means is a substantially cup shaped annular trough like member comprised of a centrally stabilizing annular flange portion which through-hole is sized to be a slip-fit around said tubing as to thereby serve as a slide-guide; and, including a contiguous outermost forward terminating annular flange portion, serving to divert

plumbing-line reverse-flowing activated water turbulence substantially away from back-splashing toward immediate presence of the human operator.

1     ★     20.) A method of employing a pneumatic-snake for clearing a clogged plumbing-line; said method comprising:

employing a length of flexible resilient imperforate tubing with an air-nozzle means at its leading-end for turbulent blasting of high-velocity air proximal a plumbing-line  
5     obstruction, and including coupling means at trailing-end of said tubing for connection to an air-valve for selective inducement of a air-pressure source means;

providing a deflection means arranged as a slip-fit upon said tubing as to reduce reverse-flow splash at the point of said tubing entry into said plumbing-line yet enabling manual feeding-in of said tubing therein said plumbing-line as required to access said  
10     plumbing obstruction;

manually inserting said air-nozzle equipped flexible tubing into the clogged plumbing-line and feeding it linearly therein until the obstruction is physically encountered, then applying intermittent said bursts of air via opening and closing of said air-valve until  
14     obstruction becomes disintegrated or dislodged and passed away into the sewer-line.

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